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Flame-retardant polycarbonate resin composition for electric and electronic uses.

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Number of Countries: 023 Number of Patents: 005

Patent Family:

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WO 9928387	A1	19990610	WO 98JP5324	A	19981126	199932	B
JP 11217494	A	19990810	JP 98306366	A	19981012	199942	
EP 1035169	A1	20000913	EP 98955940	A	19981126	200046	
			WO 98JP5324	A	19981126		
CN 1280597	A	20010117	CN 98811568	A	19981126	200128	
KR 2001032367	A	20010416	KR 2000705603	A	20000523	200163	

Priority Applications (No Type Date): JP 97343699 A 19971128

Patent Details:

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WO 9928387	A1	J	35	C08L-069/00	
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CN 1280597	A			C08L-069/00	
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Abstract (Basic): WO 9928387 A1

NOVELTY - A flame retardant polycarbonate resin composition comprises (pts. wt.):

(A) a polycarbonate resin (100),

(B) a silicone compound (0.01 to 8), and either

(C) a metal salt of an aromatic sulfur compound or

(D) a metal salt of a perfluoroalkanesulfonic acid (0.03 to 5).

DETAILED DESCRIPTION - (B) has a main chain having a branched structure and organic substituents bearing aromatic groups.

USE - The polycarbonate resin composition is used for electric, electronic uses.

ADVANTAGE - The composition has an improved flame-retadancy and contains no chlorine or bromine compound, and therefore contributes to environmental protection.

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Technology Focus:

TECHNOLOGY FOCUS - POLYMERS - The resin composition, if necessary, contains (E) a fiber-forming fluoropolymer (0.05 to 5). The silicone compound contains 20 mol% or more of RSiO1.5 (T unit) and / or SiO2.0 (Q unit) per the total siloxane unit (R3approximately0 SiO2approximately0.5)

R=organic substituent group

The organic substituents amounting to 20 mol% aromatic group in which the aromatic component is a phenyl group and other component than phenyl is CH3 are terminal group of the silicone compound is at least one group selected from CH3, phenyl, OH and alkoxy. The metal salt of the aromatic sulfur compound is a metal salt of an aromatic sulfone amide or an aromatic sulfonic acid, and the carbon number of the

perfluoroalkanesulfonic acid is 1 to 8. The metal salt of the aromatic sulfur compound is at least one salt selected from saccharine, N-(p-trylsulfonyl)-p-toluenesulfoimide, N-(N'-benzylaminocaarbonyl)sulfanylimide, n-(phenylcarboxyl)-sufanylimide, diphenylsulfone-3- sulfonic acid, diphenylsulfone-3,3'-disulfonic acid and diphenylsulfon-3,4'-disulfonic acid.

Preferred Composition: The composition contains 0.1 to 5 pts. wt. of the silicone compound and 0.02 to 2 pts. wt. of the metal salt of the aromatic sulfur compound acid, and, if necessary, 0.05 to 1 pts. wt. of the fiber-forming fluoropolymer. Another composition contains 0.1 to 5 pts. wt. of the silicone compound and 0.02 to 2 pts. wt. of the metal salt of the perfluoroalkanesulfonic acid, and, if necessary, 0.05 to 1 pts. wt. of the fiber-forming fluoropolymer. The metal in the metal salts of the aromatic sulfur compound or the perfluoroalkanesulfonic acid is an alkali metal. The fiber-forming fluoropolymer is a polytetrafluoroethylene.

Title Terms: FLAME; RETARD; POLYCARBONATE; RESIN; COMPOSITION; ELECTRIC; ELECTRONIC

Derwent Class: A14; A23; A26; A28; A60; A85; E12; E13; E19

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International Patent Class (Additional): C08K-005/36; C08K-005/42; C08L-027-12; C08L-069/00; C08L-083-04

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Chemical Fragment Codes (M3):

01 A111 A960 C316 C710 D013 D016 E610 J5 J521 K0 K4 K441 L9 L941 L970 M280 M320 M411 M511 M520 M530 M540 M630 M782 M904 M905 Q110 Q120 Q130 Q140 Q621 R07614-K R07614-M 01150

02 C316 G010 G012 G100 K0 K4 K431 K432 K442 M1 M121 M142 M280 M320 M414 M510 M520 M532 M540 M782 M904 M905 Q110 Q120 Q130 Q140 Q621 RA0CMJ-K RA0CMJ-M 01150

03 C316 G012 G019 G100 K0 K4 K431 K432 K442 K499 M1 M121 M142 M280 M320 M414 M510 M520 M532 M540 M782 M904 M905 Q110 Q120 Q130 Q140 Q621 RA0CMK-K RA0CMK-M 01150

04 C316 G012 G013 G100 K0 K4 K431 K432 K442 K499 M1 M121 M142 M280 M320 M414 M510 M520 M532 M540 M782 M904 M905 Q110 Q120 Q130 Q140 Q621 RA0CML-K RA0CML-M 01150

Polymer Indexing (PS):

<01>

001 018; G1150-R G1149 G1092 D01 D18 D76 F32 F30; P0862 P0839 F41 F44 D01 D63; H0011-R

002 018; D01 D11 D10 D19 D18 D76 F86; P1445-R F81 Si 4A

003 018; R00975 G0022 D01 D12 D10 D51 D53 D59 D69 D82 F- 7A; H0000; P0511

004 018; ND04; Q9999 Q7330-R; B9999 B4239; Q9999 Q9449 Q8173; K9745-R; B9999 B3623 B3554; B9999 B4159 B4091 B3838 B3747; B9999 B4488 B4466 ; K9905

005 018; D01 Gm 1A-R D18-R S- 6A D19 D18 D76 F64 F62 F07-R O- D77 D41 D43 D60 F35-R D61-R D11 D10 D50 D87 D47 K- 1A; A999 A248-R; A999 A771

006 018; D01 D61-R D11 D10 D69 Gm F- 7A F62 D81 D82 D83 D84 D85 D86 D87 D88; A999 A248-R; A999 A771

Ring Index Numbers: ; 01150

Specific Compound Numbers: R07614-K; R07614-M; RA0CMJ-K; RA0CMJ-M; RA0CMK-K ; RA0CMK-M; RA0CML-K; RA0CML-M

Key Word Indexing Terms:
01 217133-0-0-0-CL 217134-0-0-0-CL 217135-0-0-0-CL 1986-0-1-0-CL, ST